

Rick's reading progress

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Rick was a 7-year-old first grade student that had difficulty with reading. As described by his teacher, he was of average intelligence, but struggled with the grade level curriculum. He enjoyed playing with other students, but didn't like to read during morning center times. Rick could read some sight words such as "here, ball, I, to, go," and "the." He could also sound out a few other words, but his reading ability was lower than most of his classmates. He did not know all the letter sounds or phonemes, which led to his inability to sound out words and read in a fluent manner. The goal of the intervention for Rick was to provide instruction and practice with letter sounds and sounding out words, thereby improving his reading ability.

Rick was chosen to receive additional reading lessons from an outside instructor, myself, in his small suburban elementary school in central Pennsylvania. He was selected because he struggled greatly with the reading curriculum. He didn't have a support network at home to help him catch up and his teacher indicated that the extra help provided by the intervention might get Rick back on track and develop his reading skills.

Methods. To begin Rick's intervention, assessment data was collected to determine areas of greatest need. An informal assessment was given that measured segmenting words into sounds, telescoping sounds in a word, saying letter sounds, blending or sounding out words and saying them fast, reading sight words, and reading connected text or oral reading. The fluency aims for the previous skills appear in Table 1. Rick was fluent with segmenting and telescoping, but struggled with the remaining areas in the assessment. When Rick was informally assessed he knew most of the consonants, but his only consistently produced vowel sound was short /a/. Therefore, his instruction began with see/say letter sounds, specifically vowel sounds.

The instructor worked with Rick for seven weeks. During that time many topics were covered. Rick received instruction on, and practice with, short vowel sounds, words with short vowel sounds, decodable text reading, letter combinations, words with letter combinations, and repeated readings of grade level texts. Each lesson lasted approximately 20 minutes and followed the same format.

The lesson started with instruction in a new topic using a Direct Instruction (DI) lesson with a model, prompt, and check phase (Carnine, Silbert,

& Kameenui, 1997). For a sample lesson plan, see Figure 1. After finishing the lesson, Rick completed exercises designed to build fluency. Before the exercises began a digital kitchen timer was set with the given time for each trial and the instructions were read to Rick. The instructions were written on a sheet that was read before each day's trials. The trials began with the instructor saying "start" and ended with a beep from the kitchen timer. The fluency exercises were practice sheets, a sheet with several letters or words that Rick had to read in a set amount of time. Each sheet had more letters or words than he could read in the set time and he read until time was up. Rick did four practice sheets per day: see/say letter sounds, sight words, and two repeated readings. His trials for the see/say letter sounds were 15 seconds and for the remaining three practice sheets he had 20 seconds per trial. He had four trials per sheet and his best score of the day was recorded on a Daily Standard Celeration Chart. Between each trial on a practice sheet if errors were made, the instructor pointed them out and guided Rick to the correct answer.

Once a week, Rick was also given a Curriculum-Based Measurement (CBM) protocol (Deno, Fuchs, Marston, & Shin, 2001). These protocols measured his oral reading fluency and were chosen before instruction began based on an average end of the year first grade reading level. He read two passages on test day and the best score was charted on the Weekly Standard Celeration Chart. Rick had 20-seconds to read as much as he could and was only given one trial per story.

As reinforcement, Rick used a sticker system. He had a chart with rows of boxes on it. For each day that he did good work, which was defined as completing all the tests without complaining and giving his best effort, Rick earned a sticker to place on his chart. At the end of each session Rick and the instructor decided whether he had tried his best and done the work with little or no complaints. If it was decided that Rick had done this, he received a sticker that he chose. He then placed it on the sticker chart. When a row was completed, he could exchange it for a prize from the prize box. If Rick met an aim on a practice sheet, he received an extra sticker. When the chart was full he was able to trade the chart in for a large prize (i.e., a pack of Pokémon cards).

Results. On the see/say letter sounds chart (Figure 2), Rick progressed from a 16-letter sound practice sheet, to 32-letter sound practice sheet, to finally reaching fluency in all 40 letter sounds or phonemes. On the 16-letter sound sheet Rick's corrects increased at a celeration of $\times 1.3$ and his errors decreased by a celeration of $\div 1.9$ until he met his aim. Then Rick received a new sheet with 32 sounds on it. On the new practice sheet Rick met

Objective: The student will correctly say 3/3 words with letter combinations on 3 or more days.

Instructional Strands	Monday 4/22/02	Tuesday 4/23/02	Wednesday 4/24/02	Thursday 4/25/02
Acquisition	<p style="text-align: center;">"ea"</p> M – each, eat P/C – beat, beach, seat	<p style="text-align: center;">"ch"</p> M – chick, choose P/C – chin, chant, chew	<p style="text-align: center;">"oy"</p> M – boy, ploy P/C – toy, soy, joy	<p style="text-align: center;">"qu"</p> M – quick, quiet P/C – quiz, quit, quill
Maintenance	Story Reading: Story 14	Story Reading: Story 15	Story Reading: Story 16	Story Reading: Story 17
Fluency (Practice Sheets)	See/Say Letter Sounds Sight Word List Repeated Reading 3 Repeated Reading 4	See/Say Letter Sounds Sight Word List Repeated Reading 3 Repeated Reading 4	See/Say Letter Sounds Sight Word List Repeated Reading 3 Repeated Reading 4	See/Say Letter Sounds Sight Word List Repeated Reading 3 Repeated Reading 4
Assessment		Curriculum Based Measurement 15 Curriculum Based Measurement 16		

Figure 1

Note: M = Model: teacher demonstration
 P/C = Prompt/Check: student completed with fading assistance

Table 2

Fluency aims of reading skills

Skill	Fluency Aim
Segmenting Words into Sounds	40-60 Sounds Per Minute
Telescoping Sounds in a Word	40-60 Sounds Per Minute
Saying Letter Sounds	100-120 Letters Per Minute
Blending Words and Saying Them Fast	80-120 Blends Per Minute
Reading Sight Words	80-100 Words Per Minute
Reading Connected Text / Oral Reading	150-250 Words Per Minute

the fluency aim and his errors continued to decline. The celeration was $\times 1.7$ for corrects and $\div 2.8$ for errors. On the last sheet, which had all 44 phonemes, Rick met fluency and maintained his aim of 100-150 letter sounds per minute on three consecutive days with an acceleration of $\times 1.0$ for corrects and a deceleration of $\div 1.0$ for errors.

On the sight word practice sheet (Figure 3), Rick moved from a sheet with only short /a/ words to a sheet with words containing all the short vowel sounds. Rick didn't meet fluency on the short /a/ sheet before moving on, but was close to his aim at that time. His corrects improved at a rate of $\times 3.3$ and his errors diminished at a rate of $\div 1.6$ on the short /a/ sheet. These trends continued on his new sheet with all the vowel sounds and Rick neared fluency as the seven week instructional period ended. His corrects accelerated at $\times 1.3$ and his errors declined at $\div 1.55$.

Rick moved forward with the repeated readings during the intervention as well. On his first story he met his aim in three weeks, with his corrects increasing at $\times 1.3$ and his errors decreasing at $\div 1.8$ (Figure 4). This pattern was present on the third story too, with a rapid acceleration in corrects at $\times 9.0$ and a deceleration to no errors at a rate of $\div 4.0$.

The last set of repeated readings showed the same progress (Figure 5). His corrects improved at $\times 1.5$ and his incorrects declined at a celeration of $\div 2.2$, until meeting the aim of 150-250 words per minute on the second story. On the fourth story Rick's trend was generally upward for corrects with an acceleration of $\times 10.0$ and a deceleration in errors at a rate of $\div 7.8$.

The CBM showed an overall improvement in correct words read per minute and a steady number of errors made on each story over the interventional period (Figure 6). Rick's celeration for corrects was $\times 1.25$ and his error celeration was $\times 1.0$.

Discussion. Rick was a first grade student who enjoyed coming to school. However, after five months of instruction in a general education classroom he was unable to read at an appropriate grade level. While many of his classmates were

reading short stories, Rick was unable to even sound out short words. He realized his classmates were doing better than he was and yet he couldn't read, no matter how hard he tried.

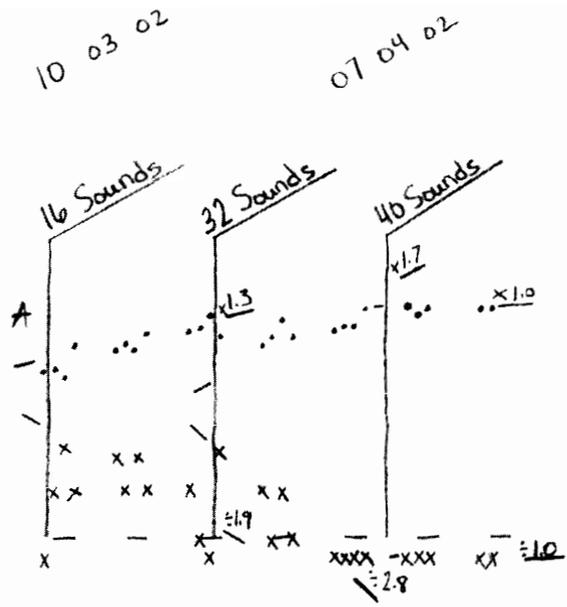
The instructor was asked to do an intervention to give Rick the skills that would enable him to read and catch up with his classmates. The instructor chose to use parts of three research-based procedures: Direct Instruction (Carnine, Silbert, & Kameenui, 1997), Precision Teaching (Lindsley, 1990), and Curriculum-Based Measurement (Deno, Fuchs, Marston, & Shin, 2001). After seven weeks of additional instruction in the basic skills necessary for reading, such as letter sounds and sounding out words (Carnine, Silbert, & Kameenui, 1997), Rick was able to read decodable text. He became fluent with these skills and generalized them to settings outside the intervention sessions. For example he would use them in class reading centers and when working with other adults.

Rick improved greatly in the see/say letter sounds and sight word practice sessions. His scores steadily rose as shown in Figure 2 and Figure 3. His ability to do repeated readings also increased dramatically throughout the interventional period as show in Figure 4 and Figure 5. However, the ultimate goal for the intervention was to give Rick the skills necessary to read. Teaching him the basics provided the foundation for his reading ability to develop. His skills for reading words in context showed remarkable progress as depicted in his weekly CBM scores (Figure 6). These scores recorded Rick's ability to read grade level texts and are solid evidence that Rick learned to read using the methods described above.

Rick's reading ability quickly accelerated during the intervention. He went from a child that didn't enjoy reading and would rather play with Pokémon cards to one who did extra trials and timed himself to see how far he could read. The best effect of the intervention though was on the last day as book order forms were being passed out. Rick looked at the instructor and said, "I'm going to ask my dad to get me some books because I can read them now." And you know what, he was right.

REFERENCES

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- Deno, S. L., Fuchs, L. S., Marston, D.B & Shin, J., (2001). Using curriculum-based measurement to establish growth standards for students with learning disabilities. *School Psychology Review*, 30(4), 507-524.
- Lindsley, O.R. (1990). Precision teaching: By teachers for children. *Teaching Exceptional Children*, 22(3), 10-15.



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Mrs. Test

Leah White

Rick

7 See/Say error words

Elementary School

1st Grade

15

Leah White

Leah White

Leah White

Figure 2

Elementary School Mrs. Test Leah White Rick 7 Sight Words
 1st Grade 15 Leah White Leah White Leah White

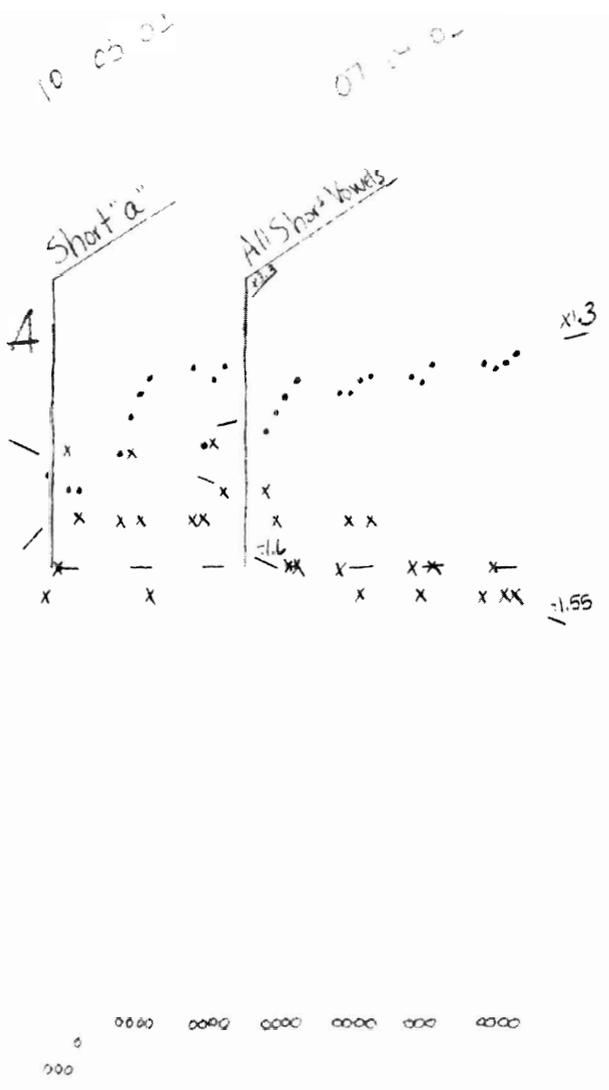
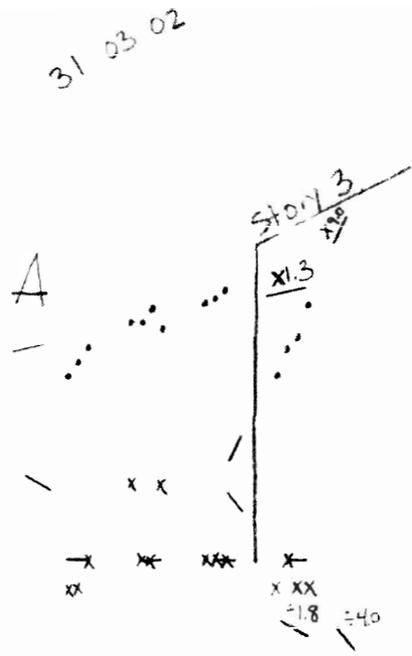


Figure 3

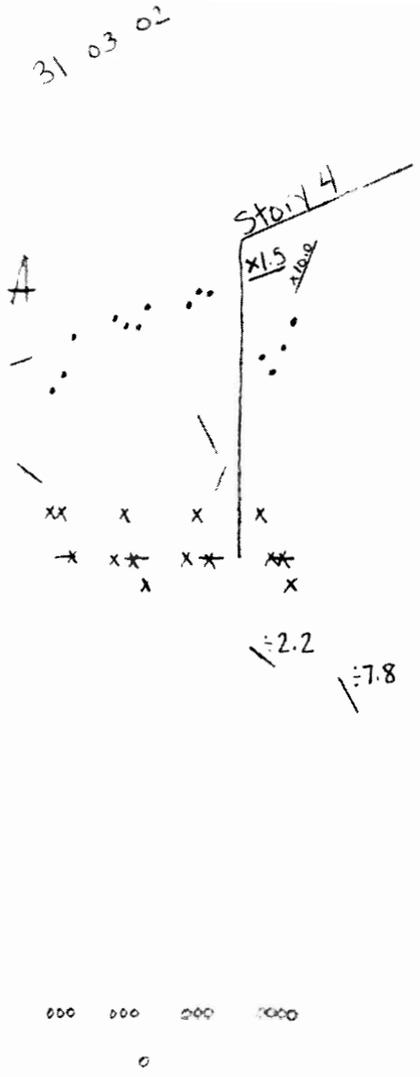


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Mrs Test Lean White Rick 7 Repeated reading-WPM

Elementary School ~ Grade 15 Lean White Lean White Lean White

Figure 4



Mrs. Test

Leah White

Rick

7 Repeated Reading - WPM

Elementary School

1st Grade

15

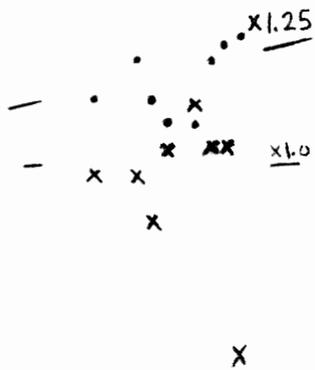
Leah White

Leah White

Leah White

Figure 5

2002 Feb Mar Apr



Mrs. Test Leah White

Rick 7 Oral Reading-WPM

Elementary School 1st Grade

15

Leah White

Leah White

Leah White

Figure 6